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Joshua Bowman* (joshua.bowman@gmail.com), Department of Mathematics and Statistics, Clark Science Center, Smith College, Northampton, MA 01063. *Dynamics on Homothety Surfaces*. Preliminary report.

A homothety surface may be constructed from a collection of Euclidean polygons in the plane by identifying pairs of edges via *homotheties*, which are compositions of translations and scaling. Many dynamical questions that have been well-studied in the case of translation surfaces remain unanswered in the case of homothety surfaces. I will describe work done at Smith College with student research groups to explore linear flow on homothety surfaces. This is joint work with Leah Balay-Wilson, Katherine Koch, Jasmine Osorio, Katherine Phillips, and Judy Wang. (Received February 09, 2014)